UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/593,908	09/06/2007	Yimin Sun	514572002800	6063	
	MORRISON & FOERSTER LLP 12531 HIGH BLUFF DRIVE			EXAMINER	
				JANSSEN, SHANNON L	
SUITE 100 SAN DIEGO, C	CA 92130-2040		ART UNIT	PAPER NUMBER	
			1639		
			MAIL DATE	DELIVERY MODE	
			06/03/2010	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Application/Control Number: 10/593,908 Page 2

Art Unit: 1639

## Advisory Action Continued

The amendment filed May 17, 2010 under 37 CFR 1.116 in reply to the final rejection has been considered but is not deemed to place the application in condition for allowance and will not be entered because of the following:

- a. The proposed amendment requires further consideration and/or search (e.g. the new limitation of a "cross-linking agent selected from the group consisting of" of claim 1).
- b. The proposed amendment may necessitate the modification of outstanding rejection(s) to address the new limitation (e.g. the new limitation of a "cross-linking agent selected from the group consisting of" of claim 1).
- c. The proposed amendment may necessitate the raising of new prior art rejections (e.g. the new limitation of a "cross-linking agent selected from the group consisting of" of claim 1).
- d. The proposed amendment may necessitate the raising of new 112 issues (e.g. the new limitation of a "cross-linking agent selected from the group consisting of" of claim 1).
- e. There is no convincing evidence under 37 CFR 1.116(b) why the proposed amendment was not earlier presented.
- f. Applicants arguments of the prior art of record (regarding the amendments) are most since the arguments are based on the proposed amendments that have not been entered.
- g. For all the reasons above, the amendment does not place the application in better condition for allowance and/or appeal.

Application/Control Number: 10/593,908 Page 3

Art Unit: 1639

## **Response to Arguments**

Applicant asserts that the Vetro et al. reference is directed to antibody development. However, it is clearly directed to a biochip for detecting small molecule compounds in cereals (see Title, Abstract). Vetro et al. is only developing antibodies for use in the assay to detect small molecule compounds. Vetro et al. also teach the small molecule compound conjugated to a support and a BSA "carrier" (see p 2822, col 2, ic-ELISA). In addition, as the examiner noted in the previous office action dated March 17, 2010, Knecht et al. do teach the small molecule compounds conjugated to BSA (see office action, p 8). Vetro et al. further teach the small molecule compound also conjugated to KLH and state, regarding the small molecule, "it's coupling to different carrier proteins [OVA, BSA, HSA, KLH, or cholera toxin (CT)] ...is very easy)" (see p 2823, col 1, last paragraph). In other words, Vetro et al. is pointing out that the different "carrier" molecules are interchangeable.

Therefore it would have been obvious to one skilled in the art at the time of the invention to utilize one of the carriers taught by Vetro et al. in the array taught by Knecht et al.

One would have been motivated to do this because Vetro et al. teach that any of the carriers, such as OVA, BSA, HAS, and KLH, can be used and further teach that they can be changed in order to improve results (see p 2823, col 2, para 2).

One would have had a reasonable expectation of success because both Knecht et al. and Vetro et al. teach successfully coupling small molecules to carriers on an array, and further teach successful detection of small molecules using the array.

Art Unit: 1639

In addition, it would have been obvious to one of skill in the art at the time of the invention to substitute one known element (ie: the carriers such as OVA, HAS, BSA, and KLH as taught by Vetro et al.) for another known element (i.e.: the carriers such as BSA, OVA and GOx as taught by Knecht et al.) because it would have yielded the predictable result of an array with a conjugate of a small molecule and a carrier. See *KSR International Co. v. Teleflex Inc., USPQ2d* 1385 (U.S. 2007).

Therefore, the teachings of Knecht et al. and Vetro et al. render the claims to be prima facie obvious

## **Future Communications**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHANNON JANSSEN whose telephone number is (571)270-1303. The examiner can normally be reached on Monday-Friday 10:00AM-7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low can be reached on (571) 272-0951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/593,908 Page 5

Art Unit: 1639

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Amber D. Steele/ Primary Examiner, Art Unit 1639

Shannon L Janssen SLJ